18. (Amended) A method for receiving information in a Radio Data System (RDS) of broadcasting the information being coded messages of data packets, comprising the steps of:

repeatedly receiving data packets of a particular type, including at least a first and a second type of coded messages; and

classifying the information types into at least a first and second class type based upon how frequently each of the plurality of information types is included in the data packets of the particular type.

Please cancel claims 20-21, without prejudice or disclaimer.

REMARKS

This is a Preliminary Amendment in which further amendments have been carried out in the claims in an effort to place all claims in allowable condition. In connection with the filing of this application, it is noted that amendments have already been made in claims 1-3 at the time of filing.

With regard to the amendments made in this application, reference is also made to the parent application serial No. 08/670,457 filed on June 26, 1996, and in particular an Office Action in that case dated January 9, 2001. Amendments that are carried out herein, respond to the aforementioned Office Action in the parent application.

Reference is made to the amended independent claims of this application, including claim 1 previously amended in this case. These amendments now direct the claims to a method and apparatus for transmitting information relating to a Radio Data System (RDS).

It is also noted that in previously amended claims 2 and 3 reference is made to an information transmission method for RDS systems, where the class types of information to be transmitted are the program service name (PS) and the radio text (RT) of a broadcast transmission and the number of re-transmission of said program service name information (more important) is greater than the number of re-transmission of the radio text information (less important).

551443.1

The above amendments are supported by the existing specification that states that the transmission method according to the invention finds particularly advantageous applications in RDS systems. As stated in the description, embodiments of the inventive method provide the information to be sent without sending any specific bits identifying the type of data contained in a packet.

As for RDS systems, it should be noted that conventional receivers do not recognize an effective PS among the various received messages (the commercial encoders transmit a dynamically changing sequence of 8 character messages as PS codes), and displays all the information in sequence. So, the user who tunes to a new station, cannot identify immediately the station name. The uncontrolled dynamic change of the display content has an impact on the driver passive security.

According to embodiments of the present invention, both the effective PS and other messages of length 64 characters or less are transmitted as PS and the originally PS is discriminated by the number of re-transmission, and thus by the number of consecutive receptions (the PS being transmitted, for example, an higher number of times).

Now, with regard to the amendments in the claims, it is noted that claim 1 as well as other independent claims in the application have now been amended to recite either a method or apparatus of transmitting information in a Radio Data System (RDS) of broadcasting, with the information being coded messages of data packets. This includes the steps of repeatedly transmitting the data packets comprising at least a first and a second type of coded messages. Next is the step of classifying information contained in the data packets into at least a first and second class type. Next, is associating at least a first and second numbers of re-transmissions to the first and second class type of information and lastly transmitting the first and second class type for a number of times corresponding to the first and second numbers of retransmission with the number of consecutive receptions of an information discriminating the first and second class types of information.

With these amendments to the claims, it is believed that these independent claims now clearly distinguish over the cited references, particularly the patents to Lanzetta et al. (U.S. 5,581,576) and the patent to Segarra (U.S. 4,551,842). Applicant believes that the reference to
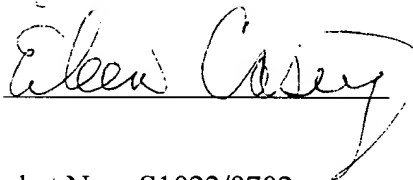
551443.1

Segarra should now be withdrawn as a reference as this does not relate to subject matter now claimed. Furthermore, it is believed that with the amendment to the claims, these claims now clearly distinguish over the Lanzetta et al. reference.

An early and favorable action is hereby earnestly solicited.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to deposit account No. 23/2825.
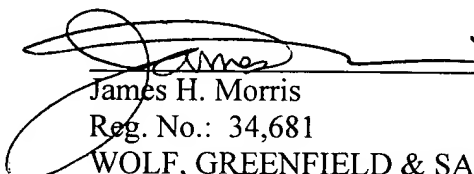
CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

I hereby certify that this document is being placed in the United States mail with first-class postage attached, addressed to the Commissioner for Patents, Washington, D.C. 20231 on December 14, 2001.

Attorney Docket No.: S1022/8702
Dated: December 14, 2001

Respectfully submitted,

Maurizio TONELLA

James H. Morris
Reg. No.: 34,681
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210
Tel. (617) 720-3500

551443.1

AMENDED CLAIMS SHOWING THE AMENDMENTS

5.   (Amended)   A method according to claim 1, wherein the data packets of said particular type [are of a type used in RDS systems and] correspond to an information word adapted to contain a service name of a program.

6.   (Amended)   A method of receiving information <u>in a Radio Data System (RDS)</u> <u>of broadcasting</u>, comprising the steps of:

    repeatedly receiving at least data packets of a particular type <u>including at least a first and</u> <u>second type of coded messages</u>;

    storing informational contents of the received data packets of said particular type <u>into at</u> <u>least a first and a second class type</u>; and

classifying the informational contents according to a number of times that it has been received.

7.   (Amended)   A method according to Claim 6, wherein said number of times is related to one of [a] <u>consecutive</u> time [interval] <u>intervals</u> of predetermined length and a predetermined number of consecutively received data packets.

9.   (Amended)   A transmitter of information adapted <u>in a Radio Data System</u> <u>(RDS) of broadcasting</u> to repeatedly transmit at least data packets of a particular type, comprising:

    a storage means adapted to contain information to be transmitted and to store said information to be transmitted in such a manner that it can be distinguished by a class associated therewith;

    a read means adapted to select and read said information to be transmitted from said storage means as well as to prepare a digital signal including a sequence of data packets of which at least some are of said particular type, said read means being effective to repeatedly transmit the data packets of the particular type <u>including at least a first and a second type of coded</u> <u>messages</u>, classify the information contained in the data packets <u>into at least a first and a second</u>

class type, and transmit the information, for a number of times which is related to a class associated therewith, through the data packets of said particular type; and

a transmitting means adapted to receive said digital signal and to transmit it physically on a transmissive medium, the number of consecutive receptions of an information discriminating said first and second class type of information .

10.   (Amended)   A transmitter according to Claim 9, wherein [the transmitter is of a suitable type for RDS systems and] the data packets of the particular type correspond to an information word adapted to contain a service name of a program.

11.   (Amended)   A receiver of information in a Radio Data System (RDS) of broadcasting adapted to repeatedly receive at least data packets of a particular type, comprising:

a receiving means adapted to physically receive a signal from a transmissive medium and to output at least a corresponding digital signal including a sequence of data packets of which at least some are of said particular type including at least a first and a second type of coded messages;

a storage means adapted to contain received information and to store said received information in such a manner that it can be distinguished by a class associated therewith into at least a first and a second class type; and

a write means adapted to extract at least data packets of said same type from said digital signal and to write at least the informational contents thereof into said storage means, said write means being effective to repeatedly receive the data packets of the particular type, store informational contents of the received data packets of said particular type, and classify the informational contents according to a number of times that it has been received.

12.   (Amended)   A receiver according to Claim 11, wherein [the receiver is of a suitable type for RDS systems and] the data packets of the particular type correspond to an information word adapted to contain a service name of a program.

16.   (Amended)   A method for transmitting information in a Radio Data System (RDS) of broadcasting said information being coded messages of data packets, comprising the steps of:

[classifying a plurality of information types into a plurality of classes] information contained in the data packets into at least a first and a second class type;

repeatedly transmitting data packets [of a particular type at least some of which including at least one of the information types] comprising at least a first and a second type of coded messages; and

controlling how frequently each of the information types is included in the data packets of the particular type based upon the class of the information type.

18.   (Amended)   A method for receiving information in a Radio Data System (RDS) of broadcasting the information being coded messages of data packets, comprising the steps of:

repeatedly receiving data packets of a particular type, [at least some of which] including at least [one of a plurality of information types] a first and a second type of coded messages; and

classifying the information types into [a plurality of classes] at least a first and second class type based upon how frequently each of the plurality of information types is included in the data packets of the particular type.